## **COMBINED DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled LOW OXYGEN AFFINITY MUTANT HEMOGLOBINS, the specification of which

	Regular .	Application		
is attached hereto.				
was filed on June 2	1, 2000 as Application Serial No	0. 09/598,218.		
	PCT Application Er	ntering National Phase		
was filed on [Date applicable).	] as PCT International Application	on No. [App. No.] and was amend	led on [Date of Am	endment] (if
hereby state that I have reviewmended by any amendment reference.		nts of the above-identified specifi	ication, including th	e claims, as
acknowledge the duty to discloss 1.56(a).	se information which is material	to patentability as defined in Title	37, Code of Federal	Regulations,
nventor's certificate listed below		tates Code, § 119(a)-(d) of any for any foreign application for patent and.		
Prior Foreign Application(s)			Priority Clair	ned
			Yes	☐ No
Number)	(Country)	(Day/Month/Year Filed)		
hereby claim the benefit under		19(e) of any United States provisio	onal application(s) lis	ted below.
Application Number)	(Filing Date)			
	Title 35, United States Code, §	120 of any United States applicatio	/ <b></b>	
provided by the first paragraph of	of Title 35, United States Code, eral Regulations, § 1.56 which be	sot disclosed in the prior United S § 112, I acknowledge the duty to ecame available between the filing	States application in disclose material in	the manner formation as
provided by the first paragraph of lefined in Title 37, Code of Fede	of Title 35, United States Code, eral Regulations, § 1.56 which be	ot disclosed in the prior United S § 112, I acknowledge the duty to	States application in disclose material in date of the prior app	the manner formation as

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Frederick H. Colen, Reg. No. 28,061; W. Scott Railton, Reg. No. 23,039; Gene A. Tabachnick, Reg. No. 33,801; Paul D. Bangor, Jr., Reg. No. 34,768; Maria N. Rullo, Reg. No. 37,433; Kirsten R. Rydstrom; Reg. No. 38,603; Barry J. Coyne Reg. No. 43,566; Cheryl L. Gastineau, Reg. No. 39,469, Ian K. Samways, Reg. No. 36,664; Charles H. Dougherty, Jr., Reg. No. 42,494; Robert D. Kucler, Reg. No. 45,908; Louis M. Heidelberger, Reg. No. 27,899; John W. Goldschmidt, Jr., Reg. No. 34,828; Daniel H. Golub, Reg. No. 33,701; William J. McNichol, Jr., Reg. No. 31,179; R. Anthony Diehl, Reg. No. 38,432; Marc J. Farrell, Reg. No. 37,826; Thomas J. McWilliams, Reg. No. 44,930; Matthew J. Esserman, Reg. No. 41,536; Maryellen Feehery, Reg. No. P-44,677; Alison B. Weisberg, Reg. No. P-45,206; Nanda Kumar, Reg. No. P-44,853; Mary E. Buckles, Reg. No. 31,907; Juan C. Marquez, Reg. No. 34,072; Stanley P. Fisher, Reg. No. 24,344 and Terri J. Latonik, Reg. No. 36,577.

Address all telephone calls to Mary-Elizabeth Buckles at telephone number (202) 414-9267

Address all correspondence to:

Mary-Elizabeth Buckles REED SMITH SHAW & MCCLAY LLP 1301 K Street, N.W. Suite 1100-East Tower Washington, DC 20005-3317

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's Signature

Full name of sole or first inventor

Residence Citizenship

Post Office Address

2034 Garrick Drive, Pittsburgh, PA 15235 USA

United States of America

2034 Garrick Drive, Pittsburgh, PA 15235 USA

Inventor's Signature

Full name of second inventor

Residence Citizenship

Post Office Address

Sucin

Date: July 12, 2000

5224 Fifth Avenue, Apt. D, Pittsburgh, PA 15232 USA

Taiwan

5224 Fifth Avenue, Apt. D, Pittsburgh, PA 15232 USA

Inventor's Signature

Full name of third inventor

Residence Citizenship

Post Office Address

Tsuei-Yun Fang

15 Wen-Hua Road, Kukeng, Yunlin, Taiwan 64606

Taiwan

15 Wen-Hua Road, Kukeng, Yunlin, Taiwan 64606

Inventor's Signature

Full name of fourth inventor

Residence Citizenship

Post Office Address

5615 Forbes Avenue, Pittsburgh, PA 15217 USA

China

5615 Forbes Avenue, Pittsburgh, PA 15217 USA

REED SMITH SHAW & MCCLAY LLP

1301 K Street, N.W., Suite 1100-East Tower Washington, DC 20005-3317

Ph: 202-414-9200

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Chien Ho, et. al.	
Serial No.: 09/598,218	

Filed: June 21, 2000

LOW OXYGEN AFFINITY MUTANT HEMOGLOBINS

## VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) and 1.27(d)) - Nonprofit Organization

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization

identified below:		
NAME OF ORG	ANIZATION:	Carnegie Mellon University
ADDRESS OF C	RGANIZATION:	5000 Forbes Avenue, Warner Hall, 4th Floor, Pittsburgh, PA 15213
$\boxtimes$	UNIVERSITY OR (	OTHER INSTITUTION OF HIGHER EDUCATION
	TAX EXEMPT UN 501(c)(3))	DER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and
	NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF	
	STATE OF THE UN	NITED STATES OF AMERICA
	(NAME OF STATE	E: [State])
	(CITATION OF ST	ATUTE: [Cite])
	WOULD QUALIFY (26 USC 501(a)	Y AS TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE and 501(c)(3)) IF LOCATED IN THE UNITED STATES OF AMERICA
	WOULD QUALIF OF STATE OF TH STATES OF AME	Y AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE HE UNITED STATES OF AMERICA IF LOCATED IN THE UNITED BRICA
	(NAME OF STAT	E: [State])
	(CITATION OF S	TATUTE: [Cite])

	and the second of the second o
	I hereby declare that the nonprofit organization identified above qualifies as a nonprofit
organization as o	defined in 37 CFR 1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title
35, United States	s Code with regard to the invention entitled LOW OXYGEN AFFINITY MUTANT
HEMOGLOBI	NS by inventors Chien Ho, Ching-Hsuan Tsai, Tsuei-Yun Fang and Tong-Jian Shen described in
	the specification filed herewith
	Application Serial No. 09/598,218, filed June 21, 2000.
	Patent No. [No.], issued [Date].
	I hereby declare that the rights under contract or law have been conveyed to and remain with the
nonprofit organiz	cation with regard to the above identified invention.
	If the rights held by the nonprofit organization are not exclusive, each individual, concern or
organization havi	ing rights to the invention is listed below* and no rights to the invention are held by any person,
other than the inv	ventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern
which would not	qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR
1.9(e).	
	t Commence manned person concern or organization
*NOTE:	Separate verified statements are required from each named person, concern or organization
	having rights to the invention averring to their status as small entities (37 CFR 1.27)
Marga	
NAME:	
ADDRESS:	SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
	SMALL DOSINESS CONCERN
Miner	
NAME:	
ADDRESS:	SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
☐ INDIVIDUAL	MALL DUSINESS CONTEST.
NAME:	
ADDRESS:	☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION
∐ INDIVIDUAL	MALL BUSINESS CONCERN THOMAS

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING:

Susan Burkett

TITLE IN ORGANIZATION:

Associate Provost

ADDRESS OF PERSON SIGNING:

Carnegie Mellon University

5000 Forbes Avenue, Warner Hall, 4th Floor, Pittsburgh, PA 15213

SIGNATURE WAN JULET DATE 7/17/CC

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

۲.

		]	
In re Applica	ation of:		
Chien	Ho, et. al.	TOWNOWAGEN A EFINITY MITTANT	
Serial No.: 0	)9/598,218	LOW OXYGEN AFFINITY MUTANT HEMOGLOBINS	
Filed: June 21, 2000			
Vi	ERIFIED STATEMENT (DECLARATION (37 CFR 1.9(f) and 1.27(d)) -	i) Claiming Small Entity Status <u>Nonprofit Organization</u>	
	I hereby declare that I am an official empo	owered to act on behalf of the nonprofit organization	
identified below			
	RGANIZATION: Carnegie Mellon Uni		
ADDRESS OF		Warner Hall, 4th Floor, Pittsburgh, PA 15213	
$\boxtimes$	University Or Other Institution	OF HIGHER EDUCATION	
П	TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and		
	501(c)(3))		
	NONPROFIT SCIENTIFIC OR EDUCATION	ONAL UNDER STATUTE OF	
	STATE OF THE UNITED STATES OF AM	MERICA	
	(NAME OF STATE: [State])		
	(CITATION OF STATUTE: [Cite])		
	WOULD QUALIFY AS TAX EXEMPT U	JNDER INTERNAL REVENUE SERVICE CODE	
	•	OCATED IN THE UNITED STATES OF AMERICA	
	WOULD QUALIFY AS NONPROFIT SO	CIENTIFIC OR EDUCATIONAL UNDER STATUTE	
	OF STATE OF THE UNITED STATES (	OF AMERICA IF LOCATED IN THE UNITED	
	STATES OF AMERICA		

(NAME OF STATE: [State])

(CITATION OF STATUTE: [Cite])

35 United States	I hereby declare that the nonprofit organization identified above qualifies as a nonprofit defined in 37 CFR 1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title Code with regard to the invention entitled LOW OXYGEN AFFINITY MUTANT by inventors Chien Ho, Ching-Hsuan Tsai, Tsuei-Yun Fang and Tong-Jian Shen described in
nonprofit organiz	<ul> <li>☐ the specification filed herewith</li> <li>☑ Application Serial No. 09/598,218, filed June 21, 2000.</li> <li>☐ Patent No. [No.], issued [Date]</li> <li>I hereby declare that the rights under contract or law have been conveyed to and remain with the ation with regard to the above identified invention.</li> </ul>
organization havi	If the rights held by the nonprofit organization are not exclusive, each individual, concern or ng rights to the invention is listed below* and no rights to the invention are held by any person, entor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR
*NOTE:	Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities (37 CFR 1.27)
NAME: Address: Individual	SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
NAME: ADDRESS: INDIVIDUAL	Small Business Concern Nonprofit Organization
NAME: ADDRESS: INDIVIDUAL	SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING:

Susan Burkett

TITLE IN ORGANIZATION:

Associate Provost

ADDRESS OF PERSON SIGNING:

Carnegie Mellon University

5000 Forbes Avenue, Warner Hall, 4th Floor, Pittsburgh, PA 15213

SIGNATURE wan dulet DATE 7/17/00